

COPD assessment test (CAT): simple tool for evaluating quality of life of chemical warfare patients with chronic obstructive pulmonary disease

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Abstract

Background: Chronic obstructive pulmonary disease (COPD) is one of the serious late pulmonary complications caused by sulphur mustard exposure. Health status evaluations of chemical warfare patients with COPD are important to the management of these patients. The aim of this study was to determine the efficacy of the COPD assessment test (CAT) in evaluating the health-related quality of life (HRQOL) of chemical warfare patients with COPD.

Methods: Eighty-two consecutive patients with stable COPD were enrolled in this study. All subjects were visited by one physician, and the HRQOL was evaluated by the CAT and St. George Respiratory Questionnaires (SGRQs). In addition, a standard spirometry test, 6-min walk distance test and pulse oxymetry were conducted. The severity of the COPD was determined using Global Initiative for Chronic Obstructive Lung Disease (GOLD) staging and the body mass index, obstruction, dyspnoea and exercise (BODE) index.

Results: The mean age of the patients was 47.30 ± 7.08 years. The mean CAT score was 26.03 ± 8.28 . Thirty-five (43%) patients were in CAT stage 3. There were statistically significant correlations between the CAT and the SGRQ ($r = 0.70$, $P = 0.001$) and the BODE index ($r = 0.70$, $P = 0.001$). A statistically significant inverse correlation was found between the CAT score and the forced expiratory volume in 1 s ($r = -0.30$, $P = 0.03$).

Conclusions: Our results demonstrated that the CAT is a simple and valid tool for assessment of HRQOL in chemical warfare patients with COPD and can be used in clinical practice.

Please cite this paper as: Lari SM, Ghobadi H, Attaran D, Mahmoodpour A, Shadkam O and Rostami M. COPD assessment test (CAT): simple tool for evaluating quality of life of chemical warfare patients with chronic obstructive pulmonary disease. *Clin Respir J* 2014; 8: 116–123.

Key words

COPD – quality of life – spirometry – sulphur mustard

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Received: 09 November 2012

Revision requested: 16 July 2013

Accepted: 25 July 2013

DOI:10.1111/crj.12047

Authorship and contributorship

The study was designed by S.M.L, H.G, and D.A, O.S, A.M, and M.R have collected the data. Data analysis was performed by SML. Drafting the manuscript was performed by SML and HG.

Ethics

The study was approved by the ethics committee of the Mashhad University of Medical Sciences. All patients gave informed consent. The manuscript has been read and approved by all co-authors.

Conflict of interest

None of the authors have a conflict of interest to declare in relation to this work.

Introduction

During the Iran–Iraq conflict (1983–1988), more than 100 000 Iranians were exposed to sulphur mustard

(SM). SM, as a toxic alkylating gas, can cause serious early and late complications (1, 2). Currently, approximately 45 000 patients are suffering from the late complications of SM exposure (3, 4). SM is absorbed